

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 3 - Advanced Technology Development				PE NUMBER AND TITLE 0603245F Flight Vehicle Technology Integration					PROJECT 2568	
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
2568 Flight Vehicle Technology Integration	5,618	7,642	8,335	9,711	11,031	12,066	12,301	14,237	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description:** This Advanced Technology Development program integrates and demonstrates advanced flight vehicle technologies that will improve the performance and supportability of existing and future manned and unmanned aerospace vehicles. System level integration brings together the aerospace vehicle technologies along with avionics, propulsion, and weapon systems to flight demonstrate them in a near-realistic operational environment. Integration and flight test demonstrations reduce the risk and time required to transition technologies into operational aircraft. This program provides proven aerospace vehicle technologies for all-weather, day or night operations, and technologies for improved affordability.

(U) **FY 1998 (\$ in Thousands):**

- (U) \$2,041 Developed and integrated advanced aeromechanics, propulsion, and flight control technologies for increased combat effectiveness. Completed detailed design and initiated fabrication of selected critical components required for the next generation exhaust nozzle and airframe integration.
- (U) \$555 Initiated development of control strategies that extended range, ensured safe operation, and allowed precision close operations for mixed manned and unmanned aerospace vehicles.
- (U) \$3,022 Developed and completed design and fabrication of aerospace vehicle structural components, integrated, and demonstrated advanced subsystem technologies
- (U) \$5,618 Total

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<p>(U) <u>FY 1999 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$2,443 Develop and integrate advanced aeromechanics, propulsion, and flight control technologies, and complete fabrication of next generation exhaust nozzle and airframe structural critical components for increasing combat effectiveness for current and future aerospace vehicle systems. – (U) \$ 1,017 Complete development and flight-test control strategies to extend range, ensure safe operation, and allow precision close operations of mixed manned and unmanned aerospace vehicles. – (U) \$3,927 Develop flight test units of electric actuator stabilators for reducing weight and manufacturing technologies as they relate to the unmanned aerospace vehicle mission. Integrate and demonstrate advanced subsystem technologies for evaluation of significant improvement in air-to-air combat effectiveness for aerospace vehicles. – (U) \$255 Identified as a source for SBIR. – (U) \$7,642 Total <p>(U) <u>FY 2000 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$2,430 Develop and integrate advanced aeromechanics, propulsion, and flight control technologies, and complete fabrication of next generation exhaust nozzle and airframe structural critical components for increasing combat effectiveness for Air Force aircraft systems. – (U) \$ 1,919 Continue development and flight-test control strategies to extend range, ensure safe operation, and allow precision close operations of mixed manned and unmanned aerospace vehicles. Continue unmanned aerospace vehicle development. – (U) \$3,986 Develop flight test units of electric actuator stabilators for reducing weight and manufacturing technologies as they relate to the unmanned aerospace vehicle mission. Integrate and demonstrate advanced subsystem technologies for evaluation of significant improvement in air-to-air combat effectiveness for aerospace vehicles. – (U) \$8,335 Total <p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$3,265 Develop and integrate advanced aeromechanics, propulsion, and flight control technologies, and complete fabrication of next generation exhaust nozzle and airframe structural critical components for increasing combat effectiveness for current and future aerospace vehicles systems. – (U) \$1,286 Complete development and flight-test control strategies to extend range, ensure safe operation, and allow precision close operations of mixed manned and unmanned aerospace vehicles. Continue unmanned aerospace vehicle development. – (U) \$5,160 Develop flight test units of electric actuator stabilators for reducing weight and manufacturing technologies as they relate to the unmanned aerospace vehicle mission. Integrate and demonstrate advanced subsystem technologies for evaluation of significant improvement in air-to-air combat effectiveness for aerospace vehicles. – (U) \$9,711 Total 		
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(U) **B. Budget Activity Justification:** This program is in Budget Activity 3, Advanced Technology Development, since it develops and demonstrates technologies for existing system upgrades and/or new system developments that have military utility and address warfighter needs.

(U) **C. Program Change Summary (\$ in Thousands):**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget/FY 1999 PB	6,062	7,674	8,807	10,884	Cont
(U) Appropriated Value	6,423	7,674			
(U) Adjustments to Appropriated Value					
a. Congressional/General Reductions	-210	-32			
b. SBIR	-155				
c. Omnibus/Other Above Threshold Reprogrammings	-41				
d. Below Threshold Reprogrammings	-399				Cont
(U) Adjustments to Budget Year Since FY1999 PB			-472	-1,173	
(U) Current Budget Submit/FY 2000 PB	5,618	7,642	8,335	9,711	Cont

(U) Significant Program Changes: Not Applicable.

FY 1999: \$255 identified as a source for SBIR.

(U) **D. Other Program Funding Summary:**

(U) Related Activities:

- (U) PE 0603106F, Logistics Systems Technology.
- (U) PE 0603205F, Flight Vehicle Technology.
- (U) PE 0603211F, Aerospace Structures.
- (U) PE 0604237F, Variable Stability In-Flight Simulation Test Aircraft.
- (U) This project has been coordinated through the Reliance process to harmonize efforts and eliminate duplication.

(U) **E. Acquisition Strategy:** Not Applicable.

(U) **F. Schedule Profile:** Not Applicable.

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